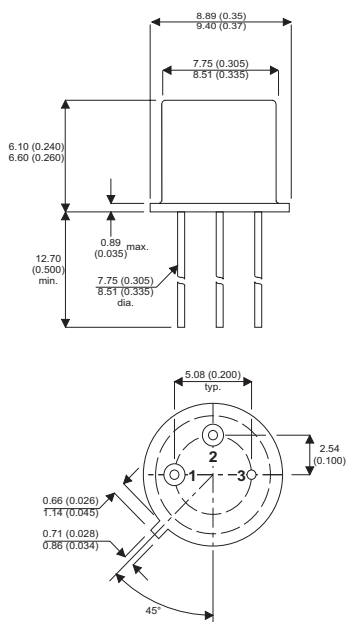


MECHANICAL DATA

Dimensions in mm (inches)



TO-39

Pin 1 – Emitter Pin 2 – Base Pin 3 – Collector

HIGH SPEED MEDIUM VOLTAGE SWITCHES

DESCRIPTION

The 2N5322 and 2n5323 are silicon planar epitaxial PNP transistors in jedec TO-39 metal case intended for high voltage medium power applications in industrial and commercial equipment.

The complementary NPN types are the 2N5320 and 2N5321 respectively

ABSOLUTE MAXIMUM RATINGS

$T_{CASE} = 25^{\circ}C$ unless otherwise stated

		2N5322	2N5323
V_{CBO}	Collector – Base Voltage ($I_E = 0$)	-100V	-75V
V_{CEV}	Collector – Emitter Voltage ($V_{BE} = 1.5v$)	-100V	-75V
V_{CEO}	Emitter – Base Voltage ($I_B = 0$)	-75V	-50V
V_{EBO}	Emitter – Base Voltage ($I_C = 0$)	-6V	-5V
I_C	Continuous Collector Current		-2A
I_B	Base Current		-1A
P_{tot}	Total Dissipation at $T_{amb} = 25^{\circ}C$		1W
	$T_{case} = 50^{\circ}C$		10W
T_{stg}, T_j	Storage and Junction temperature		-65 to +200°C

THERMAL DATA

$R_{thj-case}$	Thermal Resistance Junction-case	Max	17.5	°C/W
$R_{thj-amb}$	Thermal Resistance Junction-ambient	Max	175	°C/W

ELECTRICAL CHARACTERISTICS FOR ($T_{case} = 25^{\circ}C$ unless otherwise stated)

Parameter	Test Conditions	Min.	Typ.	Max.	Unit
I_{CBO} Collector Cut Off Current	$V_{CB} = -80V$ $I_E = 0$ 2N5322			-0.5	μA
	$V_{CB} = -60V$ $I_E = 0$ 2N5323			-5	
I_{EBO} Emitter Cut Off Current	$V_{EB} = -5V$ $I_C = 0$ 2N5322			-0.1	μA
	$V_{EB} = -4V$ $I_C = 0$ 2N5323			-0.5	
$V_{(BR)CEV}$ Collector Emitter Breakdown Voltage	$V_{BE} = 1.5V$ $I_C = -0.1mA$				V
	2N5322	-100			
$V_{CEO(SUS)^*}$ Collector Emitter Saturation Voltage	$I_C = -10mA$ $I_B = 0$				μF
	2N5322	-75			
$V_{(BR)EBO}$ Emitter Base Breakdown Voltage	$I_E = -0.1mA$ $I_C = 0$				V
	2N5322	-6			
$V_{CE(sat)^*}$ Collector Emitter Saturation Voltage	$I_C = -500mA$ $I_B = -50mA$				V
	2N5322			-0.7	
V_{BE}^* Base Emitter Voltage	$I_C = -500mA$ $V_{CE} = -4V$				V
	2N5322			-1.1	
h_{FE}^* DC Current Gain	$I_C = -500mA$ $V_{CE} = -4V$	30		130	—
	$I_C = -1A$ $V_{CE} = -2V$	10			
	2N5322				
h_{FE}^* DC Current Gain	$I_C = -500mA$ $V_{CE} = -4V$	40		250	—
	2N5323				
f_T Transistion Frequency	$I_C = -50mA$ $V_{CE} = -4V$	50			MHz
t_{on} Turn-On Time	$I_C = -500mA$ $V_{CC} = -30V$ $I_{B1} = -50mA$			100	ns
t_{off} Turn Off Time	$I_C = -500mA$ $V_{CC} = -30V$ $I_{B1} = -I_{B2} = -50mA$			1000	

* Pulse test $t_p = 300\mu s$, $\delta = 1\%$